ZVK-66

MEYERTECH
SECURITY with VISION

USER MANUAL

ZoneVu

ZVK-66

CCTV Keyboard

Issue 03

ZVK-66

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Introduction

Thank you for purchasing Meyertech's ZVK-66. Please read this user guide prior to using this product. It will help you to achieve the maximum benefit from the product. The manual covers installation, operation and maintenance of a ZVK-66.

What is a ZVK-66?

The ZVK-66 is part of the ZoneVu CCTV Control family. Meyertech's new ZVK-66 system keyboard is the latest in the range of next generation ZoneVu products. Designed to provide maximum accuracy, the ZVK-66, in conjunction with Meyertech's FUSION workstation (a PC based GUI application running under Windows), is capable of controlling multiple independent PTZF cameras on multiple sites.

The design of the ZoneVu ZVK-66 Keyboard uses the latest materials and technology available to bring superior levels of functionality and integration to the CCTV control room.

KEY FEATURES

- Ergonomic design to minimize RSI
- 3-axis proportional joystick camera control
- Fully integrated into Fusion for PCI mode operation
- Compatible with the ZoneVu product range
- Automatic Baud rate detection
- Assisted MAC configuration

The features described in this manual refer to:

Version 1.2.0.0 of the ZVK-66 firmware

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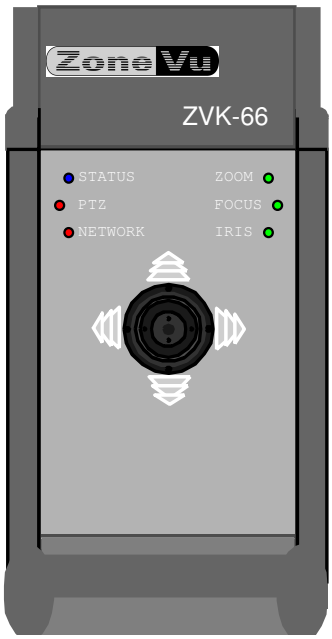
ZVK-66 LAYOUT



Joystick

The joystick employed in the ZVK-66 is a fully proportional X,Y,Z joystick providing the operator with independent variable speed control of Pan, Tilt, Zoom, Focus and Iris functions.

It also has a centre-mounted button that is used to change the functionality of the twist action.

LED layout

The LED's are split into 2 areas. During normal operation the LEDs indicate the following:

- **Status**
  These are on the left side of the keyboard:

Name	***Colour***	***Description***		
		On	***Off***	***Flashing***
Status	Blue	-	-	Normal operation
PTZ	Red	Sending telemetry / Joystick not calibrated	No telemetry been sent	See trouble shooting (page 11)
Network	Red	Network detected	Network not detected	See trouble shooting (page 11)

- **Twist Function**
  These are on the right side of the keyboard

Name	***Colour***	***Description***		
		On	***Off***	***Flashing***
Zoom	Green	Twist axis will send zoom telemetry	Twist axis not in this mode	-
Focus	Green	Twist axis will send focus telemetry	Twist axis not in this mode	-
Iris	Green	Twist axis will send iris telemetry	Twist axis not in this mode	-

Configuration

The ZVK-66 keyboard has the usual system engineering parameters, which are normally configured by the engineer during commissioning.

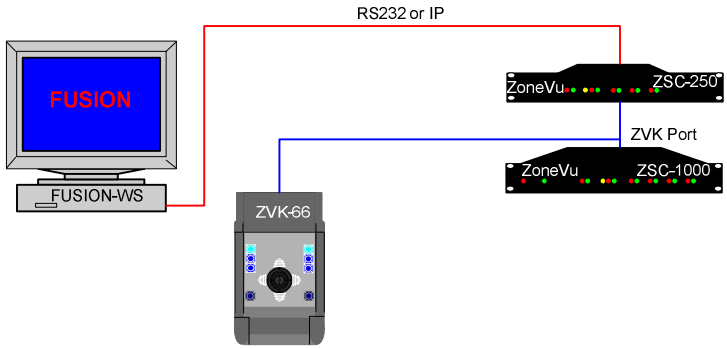
When the keyboard is connected direct to the Fusion workstation, the MAC and termination are automatically configured.

Please refer to the Fusion and FusionEdit manuals for how to setup Fusion to work with the ZVK-66 attached directly. Please note that an RS422 adaptor is required for the workstation.

Possible Setups

Direct To ZVK Network

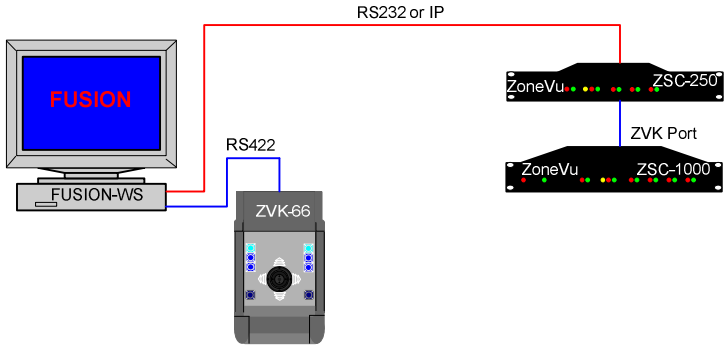
In this mode of operation, the keyboard must be configured to run on the ZVK network. The MAC address and termination must be setup using the steps described below.



Connected Direct To Fusion

In this mode of operation the Fusion workstation should be supplied with an RS422 adaptor (in the form of a PCI card or external module). The Fusion workstation is connected point to point with the keyboard and supplies all the settings to the keyboard.
The keyboards MAC address is assigned in FusionEdit, and must match the MAC address of the port used on the ZSC-250.
The only manual setup that may be required is the joystick calibration.

Note : In this mode of operation it is not possible for Fusion to connect to the PC2 port of the Site controller.



Network Setup

This is only required when the keyboard is connected directly to the ZVK network.

The ZVK-66 requires configuration of the following parameters before use:

- MAC address
- Termination

The Module Access code, or MAC is required to identify the ZVK-66 to its associated Fusion Workstation.

The baud rate is automatically detected. Valid rates are 9600, 19200 and 38400 bps.

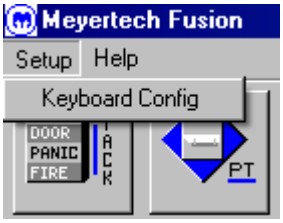
Putting the Keyboard into configuration mode

This will only be required when the keyboard is connected directly to the ZVK network.

1. Power up the keyboard with the joystick button held down. The zoom and focus LEDs will light up and the iris LED will indicate the toggling of the termination state.
2. The ZVK-66 will attempt to acquire a new MAC address. If no MAC is available, the keyboard will keep searching until one becomes available.
3. Pressing the button on the joystick will toggle the termination setting (the state is displayed in Fusion).
4. When the settings are appropriate, follow the instructions from your Fusion Workstation
5. Cycle the power on the keyboard to complete the process.

Linking to a Workstation

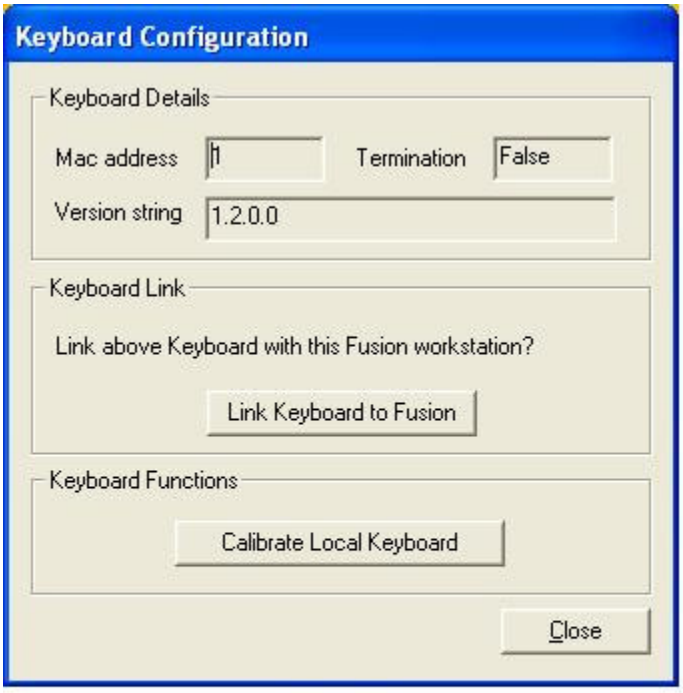
It is possible to link a ZVK-66 keyboard directly to the Fusion GUI. The operator must log on to Fusion at Manager or Engineer level then click on the Setup menu option, located at the top left of the screen, the operator must then select the keyboard config option.



This will open a new window that will display the currently configured MAC (machine access code) address of the linked keyboard.

Now put the ZVK-66 into configuration mode.

If communication to the ZVK-66 is successful, the display will update to show the current MAC address for the keyboard. If you are happy to overwrite this with the Fusion setting, press the “Link Keyboard to Fusion” button. If you do not wish to change anything, click on close.



- **Link Keyboard to Fusion**
  This will change the MAC of the keyboard to match the MAC currently used by the Fusion workstation,

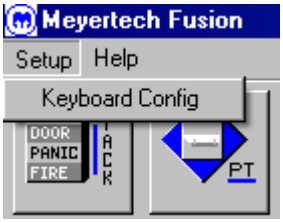
Note this configuration screen must be displayed before putting the keyboard into configuration mode.

Reading the Version Number

The version string of the keyboard is displayed in the Keyboard configuration dialog box. When directly connected to Fusion, this version number will always be displayed. When connected via the ZVK network, the version number will be displayed when the keyboard is in configuration mode.

Configuring using FusionEdit

It is possible to configure a ZVK-66 keyboard through the FusionEdit GUI. Click on the Setup menu option, located at the top left of the screen, then select the keyboard config option.

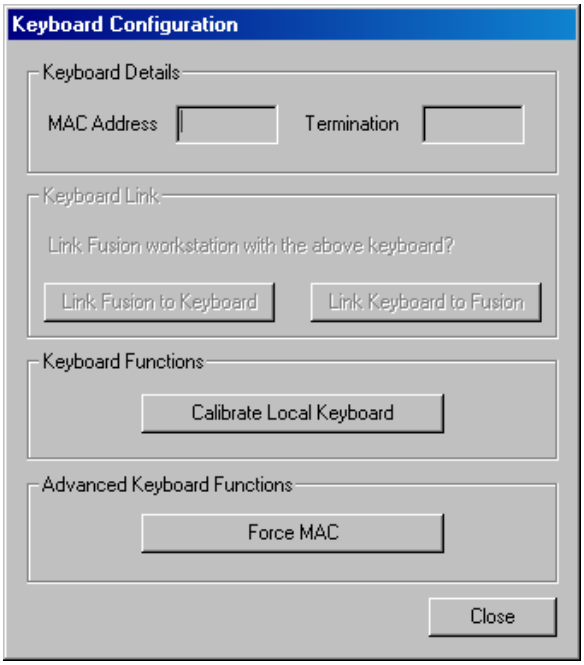


This will open a new window that will display the MAC (machine access code) address and termination setting once they have been selected by the keyboard.

When the settings are correct, press either the “Link Fusion to Keyboard” or “Link Keyboard to Fusion” button. If you do not wish to save the settings on either piece of equipment, click on close.

- **Link Fusion to Keyboard**
  This will save the displayed settings to both the ZVK-66 and Fusion.

- **Link Keyboard to Fusion**
  This will change the MAC of the keyboard to match the MAC currently used by the Fusion workstation,



To put the keyboard into calibration mode, press the “Calibrate local keyboard” button. This will calibrate the keyboard that is currently linked to the Fusion workstation.

The “Force MAC” button is used to force MAC and termination settings onto a keyboard.

The **Keyboard Link** section will become active as soon as the keyboard is put into configuration.

Note this configuration screen must be displayed before putting the keyboard into configuration mode.

Joystick Calibration

The joystick is a fully proportional type and, as such may require re-calibrating from time to time.

1) Press the “Calibrate local keyboard” button.
2) All the LEDs except the PTZ LED will go out. The PTZ LED will start flashing on the ZVK-66.
3) Move the joystick around all the extremes of the axis (left, right, up, down, clockwise and anti clockwise)
4) Press the button on the joystick to finish. The keyboard will stop responding for a moment whilst the values are saved
5) Automatically returns to the previous mode of operation.

Operation

The ZVK-66 keyboard is very simple to operate. The joystick is used to send telemetry to the camera that is currently selected by the associated Fusion workstation.

- To zoom in and out, use the button on the top of the joystick to select zoom mode and then twist the top of the joystick.
- To focus near and far, select the focus mode and use the twist axis.
- To manually control the iris of a camera, use Fusion to put the camera into manual iris mode and then press the joystick button to select iris mode. The mode of the iris is logged centrally, so if the camera is already in manual iris mode, the ZVK-66 will enable the user to control it.

Trouble Shooting

Symptom	Problem	Solution
Network flashing	MAC address conflict	Reassign a MAC address.
Network LED not lit	Device not seeing the network	When the keyboard is first plugged in it can take up to a minute to join the network. If after this time it has not been detected, check wiring.
PTZ LED permanently lit up (even when no network is present)	Joystick is not calibrated properly	Follow the instructions to re calibrate the joystick.
Iris LED will not light up, the mode jumps from focus to zoom.	The camera is in manual iris	Use Fusion to put the camera in manual iris
To get from focus to zoom, the button has to be pressed twice	Network not detected / MAC conflict	See points above
PTZ lights up when the joystick is moved but the camera is not moving	Another workstation with an equal or higher priority already has control	Request that the camera is released

For further assistance, please call the Meyertech technical service centre. The number can be found in the Support section

Safety Precautions

1. Carefully read this Product Manual prior to commencing installation and configuration.
2. Before working on this product power it down and remove the power leads. Removing panel's modules or PCB's may cause damage to the product and present an electric shock and fire hazard.
3. To reduce the risk of electric shock and fire hazard do not operate this product with panels or covers removed.
4. Do not install or operate the product near water.
5. Do not install or operate this equipment outdoors.
6. If work is carried out on the product with panels and covers removed ensure full electrostatic handling procedures are adhered to.
7. Louvers and openings are provided in the product enclosures for ventilation purposes to protect it from overheating. Under no circumstances block or cover these openings.
8. Ensure the product is operated in a suitably temperature controlled environment within the specification limits.
9. Do not operate the product in humidity greater then 90%.
10. Do not drop objects of any kind through the product louvers and openings. This may cause electric shock and fire hazard and product malfunction.
11. Avoid liquid spillages on the product. This may cause electric shock and fire hazard as well as product malfunction.
12. Never attempt to service this product yourself. This product contains no serviceable parts Refer all servicing requirements to the Meyertech Service Centre or appointed Meyertech Service Agent
13. Do not operate this product if
    - 13.1. Any product power leads are damaged.
    - 13.2. If the product has been exposed to rain.
    - 13.3. If the product has been dropped or the enclosure has been damaged.
    - 13.4. If liquid has been spilt on the product.
    - 13.5. If the appliance has malfunctioned or is not operating to its functional specification.
    - 13.6. If the products cooling fans fail to operate.
14. This product must only be operated with the power supply provided or if supplied without a power supply, by the type of power source indicated in the specification.
15. Follow all warnings and instructions marked on the product and in this manual.
16. To clean the enclosure of the product use a cloth. Do not use liquid solvent-based cleaners.

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Maintenance

The ZVK-66 requires no Planned Preventive Maintenance periods (PPM's) as it is mainly solid state in design.

The ZVK-66 contains no serviceable parts and should be returned to our Service Centre in Scunthorpe for repair or replacement under warranty. Any repairs, attempted repairs or replaced components not carried out by the Meyertech Service Centre will void all Meyertech warranties and liabilities.

If your ZVK-66 has to be returned to our Service Centre please follow the returns procedure below, otherwise delays may be incurred in returning or replacing the ZVK-66.

Returns Procedure

Prior to returning your ZVK-66.

1. Contact our Service Centre by phone on 01724 278833 or by email support@meyertech.co.uk for a Goods Return Number.
2. The GRN will be logged by our staff along with the reported problem.
3. Pack the ZVK-66 into the original packing it was delivered in. Failure to do so means the unit may incur further damage in transit, which Meyertech cannot be responsible for.
4. Organise delivery of the ZVK-66 back to our Service Centre in Scunthorpe. Use a reputable carrier, as again Meyertech cannot accept liability for loss of goods in-transit.
5. On receiving the ZVK-66 our staff will, after initial examination advise of the course of action we intend to take.
    a. Repair the ZVK-66 under warranty. The ZVK-66 will be repaired and returned to you free of charge.
    b. Replace the ZVK-66 under warranty. The ZVK-66 will be repaired and returned to you free of charge.
    c. Repair the ZVK-66 at a quoted cost. An official purchase order to cover the cost and return of the product will be required prior to commencement of repair.
    d. Advise you that the ZVK-66 is not repairable. You can then decide to have the product returned to you at the standard delivery charge or we can dispose of the product free of charge.

Meyertech Service Centre
Unit 4E Queensway Business Centre
Dunlop Way
Scunthorpe
DN16 3RN

Tel: 01724 278833
Fax: 01724 289099

Disposal

There are no additional requirements beyond safe working practice in the decommissioning of the Meyertech ZVK-66.

However the ZVK-66 contains printed circuit boards populated with electronic components. The whole unit must be returned to **Meyertech Service Centre** for final disposal. Please follow the normal returns procedure.

Meyertech Limited is a member of the CCTV User Group.

Support

Meyertech offer comprehensive levels of support during the product's warranty period. Our support team will be happy to help with any problem you may experience relating to the installation or operation of the ZVK-66

1. Telephone support (+44(0)1724 278833) which is available during normal office hours 9AM – 5PM Monday to Friday excluding Bank holidays. This support is free of charge.
2. Email support. Available 24 hours a day. Our normal response to emails is next working day. This support is free of charge. support@meyertech.co.uk
3. By Facsimile (+44(0)161 628 9811). Available 24 hours a day. Our normal response to facsimiles is next working day. This support is free of charge.
4. Site visits. Subject to availability, our engineers are available to attend site to assess and help with particular system problems firsthand. This service is chargeable. Please contact our Sales department on +44(0)161 628 8406 for further details and availability.

Meyertech offer Extended Support Contracts on all their software products. Please contact our Sales department on 0161 628 8406 to discuss your requirements or visit our website www.meyertech.co.uk

Meyertech Service Centre
Unit 4E Queensway Business Centre
Dunlop Way
Scunthorpe
DN16 3RN

Tel: 01724 278833
Fax: 01724 289099

Warranty

Please refer to Meyertech Limited 'Terms & Conditions of Sale of Goods & Services' for interpretation.

1. If the Buyer establishes to the Seller's reasonable satisfaction that there is a defect in the materials or workmanship of the Goods manufactured, then the Seller shall at its option, at its sole discretion and within a reasonable time,
    a. arrange for the repair or making good such defect or failure in such Goods free of charge to the Buyer (including all costs of transportation of any Goods or materials to and from the Buyer for that purpose),
    b. replace such Goods with Goods which are in all respects in accordance with the Contract, or subject, in every case, to the remaining provisions of this Condition 1 provided that the liability of the Seller under this Condition 1 shall in no event exceed the purchase price of such Goods and performance of anyone of the above options shall constitute an entire discharge of the Seller's liability under this warranty.

2. Condition 1 shall not apply unless the Buyer:

    a. notifies the Seller in writing of the alleged defect within 12 (twelve) months from delivery or such other period or periods as may be agreed in writing between the Seller and the Buyer, and
    b. allows the Seller a reasonable opportunity to inspect the relevant Goods.

3. For the avoidance of doubt, the Seller shall be under no liability under the warranty in Condition 1 above:
    a. where such defects arise from any drawing, design or specification supplied by the Buyer; or
    b. where such defects arise from fair wear and tear, wilful damage, or negligence of a party other than the Seller (or its employees or authorised personnel), abnormal working conditions, failure to follow the Seller's instructions (whether oral or in writing), misuse or alteration or repair of the Goods without the Seller's approval; or
    c. where such defects arise in parts, materials or equipment which have not been manufactured or designed by the Seller but have been purchased at the Buyer's request by the Seller from the Buyer's designer and manufacturer or from some other third party (the **"Third Party Supplier").**
    d. if the total price of the Goods has not been paid by the due date for payment
    e. in respect of any type of defect, damage or wear specifically excluded by the Seller by notice in writing: or
    f. if the Buyer makes any further use of the Goods after giving notice in accordance with Clause 1

4. Any repaired or replaced Goods shall be redelivered to the Buyer free of charge to the original point of delivery but otherwise in accordance with and subject to these Conditions.

5. Alternatively to Condition 1 the Seller shall be entitled at its absolute discretion on return of the defective Goods to the Seller (at the Seller's request) to refund the price of the defective Goods in the event that such price shall already have been paid by the Buyer to the Seller, or, if such price has not been paid, to relieve the Buyer of all obligation to pay the sum by the issue of a credit note in favour of the Buyer in the amount of such price.

6. In respect of all Goods supplied to the Seller by a Third Party Supplier the Seller will on request pass on to the Buyer (in so far as reasonably possible) the benefit of any warranty given to the Seller by such Third Party Supplier and will (on request) supply to the Buyer details of the terms and conditions of such warranty and copies of any relevant product information sheets, technical data sheets or product leaflets issued by such Third Party Supplier and the Buyer shall be solely responsible to the entire exclusion of the Seller for complying with the same.

7. For the purposes of Condition 1 references to Goods shall be deemed to exclude software.

8. The Buyer acknowledges that software in general is not error-free and agrees that the existence of such errors in the Software Programs shall not constitute a breach of this Contract.

9. In the event that the Buyer discovers a material error which results in the Programmed Products not performing substantially in accordance with the Functional Specification, or the Licensed Programs not performing substantially in accordance with the relevant Program Documentation and notifies the Seller of the error within 90 days from the date of the Seller making available the respective software to the Buyer (the `**warranty period"**) the Seller shall at its sole option either refund the price which the Buyer has paid to the Seller (or if such price has not been paid, relieve the Buyer of all obligations to pay the sum) in respect of the respective software or use all reasonable endeavours to correct by patch or new release (at its option) that part of the software which does not so comply provided that such non-compliance has not been caused by any modification, variation or addition to the software not performed by the Seller or caused by its incorrect use, abuse or corruption of the software by use of the software with other software or on equipment with which it is incompatible,

10. To the extent permitted by English law, the Seller disclaims all other warranties, with respect to the software which it provides pursuant to the Contract, either express or implied, including but not limited to any implied warranties of satisfactory quality or fitness for any particular purpose.

11. The Buyer is solely responsible for various scanning the software that it receives from the Seller pursuant to the Contract.

12. The Seller warrants that it will use reasonable skill and care in providing the Services to the buyer